

REMARKS

The Inventors' initial Application in this case filed April 11, 2002 included a Preliminary Amendment directed to maintaining Claim 1 and adding Claims 38-74. Claims 38-47 were directed to a method of cooling an animal by applying a liquid between the hairs of the animal and blowing air over the liquid; Claims 47-64 were directed to a method of protecting parts of an animal while cooling the animal with water spray and shielding parts of the animal against receiving the water spray; and Claim 65-74 were directed to a device for cooling animals comprising wetting means that reduce a liquid to fine spray in an application to at least part of the animal between the animal's hairs and airflow producing means for producing an airflow directed over the wetted part of the animal.

On February 6, 2002, the Patent Examiner issued an initial Office Action requesting Applicants to elect a single disclosed species for prosecution on the merits to which the Claims shall be restricted if no generic claim is finally held to be allowable in accordance with 35 U.S.C. § 121.

In its initial response filed June 6, 2002 the inventors respectfully traversed the restriction requirement. The Examiner's second Official Action dated August 28, 2002 only addresses pending Claims 65-74. The inventors respectfully request reconsideration of June 6, 2002 response traversing the Restriction Requirement together with withdrawal of the Restriction Requirement.

The instant Amendment addresses pending Claims 65-74. These claims have been cancelled without prejudice and new Claims 75-84 are added herein. Claims 75-84, which correspond to prior Claims 65-74, are directed generally to the same subject matter as Claims 65-74.

In the second Office Action, U.S. Patent number 5,970,911 to van der Lely, is cited as basis for rejecting Claims 65-74 under Section 102 (e), because, in the Examiner's opinion, Claims 65-74 are anticipated by van der Lely reference. To reach his conclusion the Examiner asserts that the construction of the apparatus in the van der Lely reference teaches the cooling apparatus claimed because it discloses "reducing a liquid a fine spray by the rubbing of the cow with brushes." Further, the Examiner deduces that a manual operator can visually monitor stress of an animal and olfactory monitor animal odors. Moreover, the Examiner deems obvious the use of video cameras and hydrometers for monitoring activity and humidity respectively. The inventors respectfully disagree:

The instant invention is a significant improvement in the field of automated dairy farming. The evolution of dairy farms has been affected by many modernizing inventions which reduce labor needs. At one time, most dairy farms were in or near the cities where the milk was sold and the cows were milked manually. The advent of the railroad permitted dairy farms to move farther out away from the cities and pasteurization made milk, preferably cool, last longer. The perfection of the milking machine which comprises pulsating teat cups which are manually placed on the teats of the animal (usually a cow) being milked greatly reduced labor requirements. With such machines, the cows were usually milked twice a day in stanchion barns or at milking parlors. A substantial advance occurred when refrigerated bulk milk tanks were used to receive milk from the milking machines. With this advance, the need for placing cans by the side of the road to be picked up by milk trucks ceased. Milk which was cooled in the bulk

milk tank was then picked up perhaps once every other day by a milk tank truck which transported it to a dairy for processing. Dairy farm equipment and buildings must be maintained in a highly hygienic and sanitary state and therefore the introduction of automatic cleaning of milk pipelines, bulk milk tanks and other equipment significantly reduced labor requirements.

Nevertheless, until recently (and at most dairy farms in the United States at present) the teat cups were (and still are) placed by hand on the cow's teats which requires that someone be present to do this at least twice a day seven days a week. Members of the farming community could always tell the ones who operated dairy farms because at Sunday picnics they had to leave around 3:00pm or 3:30pm for the 4:00pm milking. The other usual milking was at 4:00am. It was known that by milking cows three times a day rather than two times a day substantially more milk is obtained. However, the gain is offset by the additional labor requirements and therefore most dairy farms milk twice a day. Recently, the Assignee of the instant Application, as well as other dairy farm equipment manufacturers, commenced introducing fully automated milking stations or compartments for the use of dairy farmers. With such automated systems, the individual animals, in effect, milk themselves.

The automation of the milking industry relieves farmers from much of the labor incident to milking and reduces labor costs significantly to the point where small families can maintain and monitor large herds. Indeed, the undersigned is informed that each automated milking system, which costs about \$250,000, can handle a herd of up to 50 or 60 cows. Hence, farmers with but one or two employees or laborers can manage herds of over a 100 head of cows.

In view of the above, it should be appreciated that the cooling system disclosed in the instant invention is for automated systems without significant involvement of the farmer. The

Examiner's conclusion that a farmer or other manual operator can visually monitor stress of an animal and olfactory monitor animal odors is misplaced. The instant invention teaches away from hands-on manual. The Claims presented herein include the terminology "automated" to clarify the significant automated nature of the apparatus disclosed in the instant invention.

Further, when a milk producing animal, such as a cow, decides it is time to be milked, she enters a milking compartment where she is sensed and identified. Sensors determine the position of the cow's teats and teat cups are automatically connected thereto whereupon teat cups are pulsated in the same manner as teat cups which are manually installed and milk from the teat cups is conveyed, in the usual manner, to a refrigerated bulk milk tank. When the milking is completed the cow voluntarily leaves the milking compartment. Milking compartments usually are supplied with troughs so that the animal can be fed and drink water at the same time. Indeed, the provision of feed to the trough may be timed to commence and end at the same time the milking process commences and ends. Sometimes molasses is added to the feed to make it more attractive and therefore to attract the animal to the milking compartment. Other things may be done to making the milking process comfortable for the animal such as providing music and brushing and cooling the animal. It has been determined that prior art cooling devices have deficiencies, namely, the presence of too large a water droplet forming on the back of the animal resulting in water dripping to undesired areas such as the udder and teats of the animal being milked. Moreover, the prior art cooling devices wasted water, which is a serious problem with automated milking systems.

An object of the instant invention is to provide the dairy farmer with a system of increased efficiency for cooling the dairy cow which leads to better milking yield via the automated milking process.

In the latest Official Action, claims were rejected under 35 U.S.C. §102 based on U.S. Patent No. 5,970,911, which issued October 26, 1999, to van der Lely, as directed to an animal massaging system. Basically the Lely patent is directed to such a system comprising a brushing device designed to massage a dairy cow over the back and under the belly during the automated milking process. The Lely patent discloses an embodiment where the cow massage includes adding air, water, or oil to the massage brushes (see Col 4 line 16) to increase the relaxing effect of the massage, Adding lubricating water or oil to a massage treatment provides a more pleasing and relaxing massage. However, there is no mention or disclosure anywhere in the van der Lely reference which teaches efficient cooling of an animal, with water or otherwise. The reference is simply not directed to cooling an animal. Indeed, the disclosure references the use of water as a lubricant during the "cold season" (Col. 1 line 58) presumably because animal fur may tend to resist brushing more in the cold than warm season thereby requiring the need for lubrication.

Nothing found in the van der Lely reference teaches towards the invention of the instant Application. A rejection based on 35 U.S.C. §102 does not apply. The Lely reference does not teach cooling animals in automatic milking compartments wherein the animals are robotically milked. Indeed, nothing was found in the van der Lely reference to suggest that atomizing water and brushing the uniform and fine water spray into the hairs of a dairy cow maximizing cooling and prevents wasting water and prevents the formation of undesired water droplets reaching undesired areas.

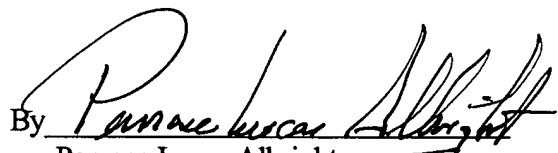
It is a well settled principle that prior patents are references only for what they clearly disclose or suggest and that it is not proper use of a patent as a reference to modify its structure to one which the prior references do not suggest.

Further consideration and reexamination of this Application, in its amended form, is requested in view of 35 U.S.C. §132 and regulations in implementation thereof It is submitted the Application in its amended form is free from ambiguity and avoids the references of record. It is further submitted the Examiner should have no difficulty in finding that the differences between the subject matter sought to be patented in this Application and prior art and usage within his expert knowledge are such that the subject matter as a whole would not have been obvious at the time the invention was made to persons having ordinary skill in the art to which the subject matter of this Application pertains.

In view of the foregoing, the allowance of claims as now presented is earnestly solicited.

Respectfully submitted,

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